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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,445	06/26/2003	Shuichi Sugita	2204-031174	2951

28289 7590 04/14/2004

WEBB ZIESENHEIM LOGSDON ORKIN & HANSON, P.C.
700 KOPPERS BUILDING
436 SEVENTH AVENUE
PITTSBURGH, PA 15219

EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,445

Applicant(s)

SUGITA ET AL.

Examiner

Kevin R Kruer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 2 pigment (page 1, line 24). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

Note: for purposes of examination, the term "flake" is understood to be a "flattened piece" as defined by Merriam Webster's Collegiate Dictionary.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Panush et al (US 4,615,940).

Panush teaches an opalescent color effect produced by utilizing a multicoat coating system on a substrate (abstract). Preferred substrates include metal materials (col 2, line 26). The first coat is primer color coat (abstract) which is herein relied upon

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to read on the claimed "under clear coat." The color coat comprises a resin and pigments such as titanium dioxide (col 5, line 46). The second coat is a transparent interference coat containing a polymeric binder and a metal oxide encapsulated in mica particles (abstract). Useful metal oxides include titanium dioxide and iron oxide (col 7, lines 25+). The transparent interference coat is herein understood to read on the claimed "clear-paint film." A final layer of clear coat is applied to the interference coat (col 8, lines 45+). Said layer is understood to read on the "top clear coat" of claim 8.

The mica particles of Panush are understood to read on the claimed "transparent or translucent inorganic flakes" because Applicant discloses mica is useful as said flake.

The titanium dioxide coating is understood to read on the claimed "transparent or translucent metal oxide layer" because Applicant discloses titanium dioxide is useful as said coating.

The titanium dioxide pigment taught in Panush is understood to read on the claimed "translucent flaky pigment" of claim 6 because applicant discloses metal oxides may be utilized.

With regard to claim 9, Panush teaches that the interference coat should have a thickness of 0.7-1.3 mil (col 8, line 40). Furthermore, the clear coat should have a thickness of 1.8-2.3 mil (col 8, line 51). Thus, the ratio of the thickness of the interference coat to the clear coat is 0.3-0.7. Said range overlaps the claimed range and is understood to anticipate films wherein the thickness ratio is 0.5-0.7.

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The particles are taught to have a size of 5-60um in their largest dimension and a thickness of 0.25 um. (col 7, lines 25+). Particles with such dimensions are understood to read on "flakes."

5. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Panush (US 4,598,015)

Panush teaches a substrate material having coated thereon a multilayer coating system comprising at least one basecoat and at least one topcoat (col 2, lines 3+). The substrate is preferably metal (col 2, lines 51+). The base coat is pigmented (col 2, lines 43+) and is herein understood to read on the claimed "under clear coat." The topcoat coating is transparent and comprises a thermoplastic or thermosetting resin material containing titanium dioxide encapsulated mica particles (abstract). The topcoat is herein understood to read on the claimed "clear paint film." The mica is preferably platelet-shaped (col 6, line 2). A "platelet" is herein understood to read on the claimed "flake" because a platelet is defined as a "flattened body."

The mica particles of Panush are understood to read on the claimed "transparent or translucent inorganic flakes" because Applicant discloses mica is useful as said flake.

The titanium dioxide coating is understood to read on the claimed "transparent or translucent metal oxide layer" because Applicant discloses titanium dioxide is useful as said coating.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Panush (US 4,598,015) as applied to claims 1-3 above, and further in view of JP 62057676 (herein referred to as Kansai).

Panush is relied upon as above, but does not teach that the topcoat should comprise a matting agent. However, Kansai teaches a multi-layer coating comprising a pigmented basecoat and a topcoat comprising a matting agent. Preferred matting agents include silica and silicates with an average particle size of 4-6µm (abstract). Using said matting agents in the topcoat results in a matted film (abstract). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a silica or silicate matting agents to the topcoat taught in Panush. The motivation for doing so would have been to give the resulting multi-layer coating a matted appearance.

8. Claims 6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Panush et al (US 4,615,940), as applied to claims 1-3 and 8-9 above, and further in view of Weinert (US 6,270,840).

Panush is relied upon as above, but does not teach that the titanium dioxide pigment in the primer color coat should be a flake. However, Weinert teaches that, in contrast with the classical pigments produced in accordance with a grinding process and having a more or less spherical shape, plane-parallel flakes are characterized by an improved brilliance and by the fact that their quantity required in a paint as a

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pigment is substantially smaller (col 1, lines 16+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize titanium dioxide flake as the pigment taught in Panush. The motivation for doing so would have been to improve the brilliance of the final product and reduce the quantity of pigment required.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on 571-272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer
Patent Examiner-Art Unit 1773